

OCT 24 2007

Customer No.: 31561
Application No.: 10/710,907
Docket No.: 13418-US-PAAMENDMENTSTo The Claims:

1. (currently amended) A LCD lighting control system, comprising:

a lamp;

a self-oscillation inverter, coupled to a power source and the lamp, for converting electrical energy from the power source to the lamp, the self-oscillation inverter operating with a self-oscillation frequency;

a DC/DC power converter circuit, coupled to the self-oscillation inverter and the power source, operated with a operation frequency;

a sampling-frequency generating circuit, coupled to the self-oscillation inverter, for sampling and measuring the self-oscillation frequency for outputting a synchronization frequency;

a detecting-feedback circuit, coupled to the lamp, for detecting a current flowing through the lamp and perform feedback operation and outputting a feedback signal; and

a modulator, coupled to the detecting-feedback circuit, the sampling-frequency generating circuit and the DC/DC power converter circuit~~self-oscillation circuit~~, for receiving and measuring the feedback signal and the synchronization frequency for outputting a control signal ~~controlling~~ synchronized with the self-oscillation frequency to the DC/DC power converter circuit for controlling the operation frequency of the DC/DC power converter circuit by the control signal.

2. (original) The LCD lighting control system of claim 1, wherein the sampling-frequency generating circuit samples at a preset sampling location in the

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self-oscillation circuit.

3. (original) The LCD lighting control system of claim 2, wherein the self-oscillation inverter comprises a first transistor and a second transistor.

4. (original) The LCD lighting control system of claim 3, wherein the preset sampling location is a collector of the first transistor.

5. (original) The LCD lighting control system of claim 3, wherein the preset sampling location is a collector of the second transistor.

6. (original) The LCD lighting control system of claim 1, wherein the sampling-frequency generating circuit comprises:

a sampling circuit, coupled to the self-oscillation circuit, for sampling the self-oscillation frequency; and

a frequency-generating circuit, coupled to the sampling circuit and the modulator, outputting the synchronization frequency after measuring the self-oscillation frequency.

7. (original) The LCD lighting control system of claim 1, wherein the detecting-feedback circuit comprises:

a detecting circuit, coupled to the lamp, for detecting the current flowing through the lamp and outputting a detecting signal; and

a feedback compensation circuit, coupled to the detecting circuit and the modulator, for measuring the detecting signal for outputting the feedback signal.

8. (currently amended) The LCD lighting control system of claim 1, ~~further comprising~~ wherein the DC/DC power converter circuit is a buck circuit coupled to the modulator, the self-oscillation inverter and the power source.

9. (cancelled)

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10. (original) The LCD lighting control system of claim 1, wherein the self-oscillation inverter is a DC/AC inverter.

11. (original) The LCD lighting control system of claim 1, wherein the synchronization frequency is single, double, triple, or multiple of the self-oscillation frequency.

12. (currently amended) A LCD lighting control system, comprising:

a lamp;

a self-oscillation inverter, coupled to a power source and the lamp, for converting electrical energy from the power source to the lamp, the self-oscillation inverter operating with a self-oscillation frequency;

a sampling-frequency generating circuit, coupled to the self-oscillation inverter, for sampling and measuring the self-oscillation frequency and outputting a synchronization frequency;

a detecting-feedback circuit, coupled to the lamp, for detecting a current flowing through the lamp and perform feedback operation and outputting a feedback signal;

a modulator, coupled to the detecting-feedback circuit, the sampling-frequency generating circuit and the self-oscillation circuit, for receiving and measuring the feedback signal and the synchronization frequency and outputting a control signal ~~controlling~~ synchronized with the self-oscillation frequency; and

a buck circuit, coupled to the modulator, the self-oscillation inverter and the power source, operated with a operation frequency, receiving the control signal from the modulator for controlling the operation frequency of the buck circuit.

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13. (original) The LCD lighting control system of claim 12, wherein the sampling-frequency generating circuit comprises:

a sampling circuit, coupled to the self-oscillation circuit, for sampling the self-oscillation frequency; and

a frequency-generating circuit, coupled to the sampling circuit and the modulator, for outputting the synchronization frequency after measuring the self-oscillation frequency.

14. (original) The LCD lighting control system of claim 12, wherein the detecting-feedback circuit comprises:

a detecting circuit, coupled to the lamp, for detecting the current flowing through the lamp for outputting a detecting signal; and

a feedback compensation circuit, coupled to the detecting circuit and the modulator, for measuring the detecting signal for outputting the feedback signal.

15. (original) The LCD lighting control system of claim 12, wherein the buck circuit is a DC/DC buck circuit.

16. (original) The LCD lighting control system of claim 12, wherein the self-oscillation inverter is a DC/AC inverter.

17. (original) The LCD lighting control system of claim 12, wherein the synchronization frequency is single, double, triple, or multiple of the self-oscillation frequency.